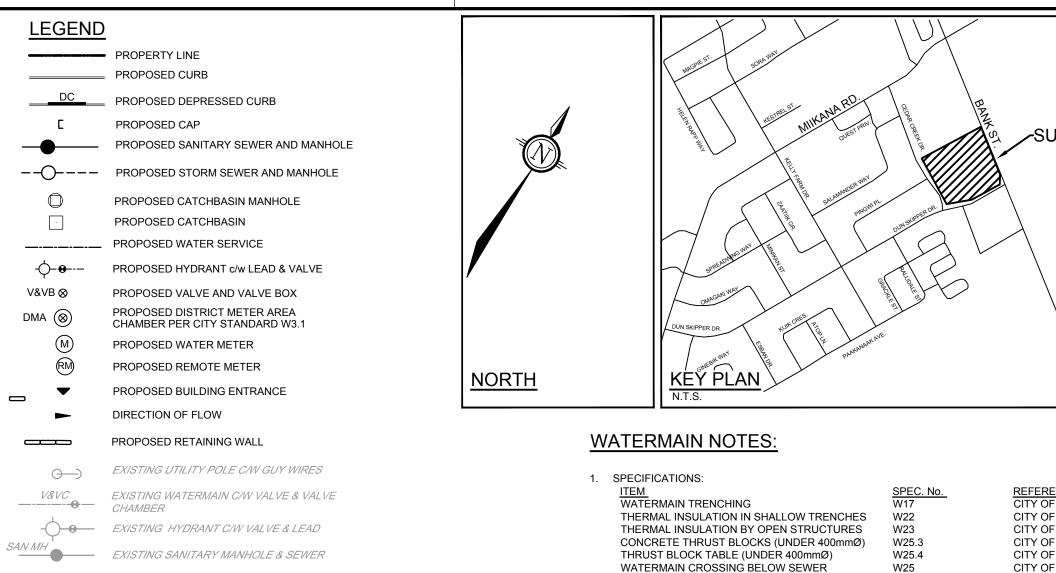


BLE: AREA R-1 (FOR DRAINS RD 1 to RD 8)						
WEIR ETTING	1:5 YEAR RELEASE RATE			APPROX. 100 YR PONDING DEPTH		
'EXPOSED	1.26 L/s	10 cm	1.58 L/s	13 cm		
'EXPOSED	1.26 L/s	10 cm	1.58 L/s	14 cm		
XPOSED	0.95 L/s	10 cm	1.10 L/s	13 cm		
XPOSED	0.95 L/s	10 cm	1.10 L/s	13 cm		
EXPOSED	1.26 L/s	11 cm	1.58 L/s	14 cm		
XPOSED	0.95 L/s	10 cm	1.10 L/s	13 cm		
XPOSED	OSED 0.95 L/s 10 cm		1.10 L/s	13 cm		
XPOSED	SED 0.95 L/s 10 cm		1.10 L/s	13 cm		
-	8.53 L/s	-	10.24 L/s	-		

	ROOF DRAIN TABLE: AREA R-2 (FOR DRAINS RD 1 to RD 6)							
AREA ID *	ROOF DRAIN No. (WATTS MODEL)	WEIR SETTING	1:5 YEAR RELEASE RATE	APPROX. 5 YR 1:100 YE PONDING DEPTH RELEASE F		APPROX. 100 YR PONDING DEPTH		
R-2	RD 1 (RD-100-A-ADJ)	FULLY EXPOSED	1.26 L/s	10 cm	1.58 L/s	13 cm		
R-2	RD 2 (RD-100-A-ADJ)	FULLY EXPOSED	1.26 L/s	10 cm	1.58 L/s	13 cm		
R-2	RD 3 (RD-100-A-ADJ)	1/2 EXPOSED	0.95 L/s	10 cm	1.10 L/s	13 cm		
R-2	RD 4 (RD-100-A-ADJ)	1/2 EXPOSED	0.95 L/s	10 cm	1.10 L/s	13 cm		
R-2	RD 5 (RD-100-A-ADJ)	FULLY EXPOSED	1.26 L/s	10 cm	1.58 L/s	13 cm		
R-2	RD 6 (RD-100-A-ADJ)	FULLY EXPOSED	1.26 L/s	11 cm	1.58 L/s	14 cm		
TOTALS	-	-	6.94 L/s	-	8.52 L/s	-		



T 6+013.0

REFERENCE OPSD

CITY OF OTTAWA

OPSD

OPSD

OPSD

OPSD

OPSD

OPSD

**GENERAL NOTES** 

STM MH \_\_\_\_\_ EXISTING STORM MANHOLE & SEWER

EXISTING CATCHBASIN

- 1. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR 3. TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
- 3. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION. 4. BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK
- AND OPERATIONAL LIABILITY INSURANCE FOR \$5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED. RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON 6. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AN
- PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.
- REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY. 7. ALL ELEVATIONS ARE GEODETIC.
- 8. REFER TO GEOTECHNICAL REPORT PG7262-1, DATED NOVEMBER 14, 2024, PREPARED BY PATERSON GROUP, FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
- 9. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.
- 10. REFER TO SERVICING AND STORMWATER MANAGEMENT REPORT (R-2024-129) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
- 11. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
- 12. PROVIDE LINE/PARKING PAINTING
- 13. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, T/WM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.

701.010

701.011

701.012

401.010 -TYPE 'A'

PVC DR 35 / CONC 65-D

401.010-TYPE 'B'

S19

S29

S30

S31

S35

404.020

1003.010

## SEWER NOTES:

1. SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURREN CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.

2. SPECIFICATIONS:

- CATCHBASIN (600x600mm) STORM / SANITARY MANHOLE (1200mmØ) STORM / SANITARY MANHOLE (1500mmØ) STORM / SANITARY MANHOLE (1800mmØ) CB\_FRAME & COVER STORM / SANITARY MH FRAME & COVER CATCHBASIN MANHOLE FRAME & COVER SEWER TRENCH PERFORATED PIPE (SUBDRAIN) CATCHBASIN TEE CATCHBASIN ELBOW INSULATION FOR SHALLOW SEWERS
- ALUMINUM SAFETY PLATFORM DROP STRUCTURE STORM SEWER CATCHBASIN LEAD
- PVC DR 35 3. ALL STORM AND SANITARY SERVICE LATERALS SHALL BE EQUIPPED WITH BACKFLOW PREVENTION DEVICES AS PER THE CITY OF OTTAWA STANDARD DETAILS S14 AND S14.1 OR S14.2.
- 4. INSULATE SANITARY AND STORM PIPES THAT HAVE LESS THAN 2.0m COVER WITH HI-40 INSULATION PER CITY OF OTTAWA STANDARD DETAIL \$35.
- 5. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
- 6. PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED
- 7. FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX: POSITIVE SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.
- 8. THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16. 410.07.16.04 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.
- 9. ALL STORM MANHOLES AND CATCHBASIN MANHOLES ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED. ALL CATCHBASINS ARE TO HAVE 600mm SUMPS UNLESS OTHERWISE INDICATED. ALL CATCHBASINS TO HAVE 3.0m OF FILTER-CLOTH WRAPPED 100mm PVC PERFORATED SUBDRAIN IN AN UPGRADIENT DIRECTION PER GEOTECHNICAL RECOMMENDATIONS.
- 10. ALL CATCHBASINS, MANHOLES AND/OR CATCHBASIN MANHOLES THAT ARE TO HAVE ICD'S INSTALLED WITHIN THEM ARE TO HAVE 600mm SUMPS.
- 11. ALL WEEPING TILE CONNECTIONS TO BE MADE TO THE PROPOSED STORM SEWER SYSTEM DOWNSTREAM OF ANY INLET CONTROL DEVICES.
- 12. ROOF DRAINAGE IS NOT PERMITTED TO BE CONNECTED TO THE BUILDING FOUNDATION DRAINAGE SYSTEM. 13. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS, 200mmø OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL
- 14. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, T/WM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.

## **BENCHMARK NOTES:**

OF 64.947 METRES (CGVD28:78).

SEWERS & APPURTENANCES

- 1. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO CITY OF OTTAWA 2016-0350, HAVING A PUBLISHED ELEVATION
- 2. IT IS THE RESPONSIBILITY OF THE USER OF THIS INFORMATION TO VERIFY THAT THE JOB BENCHMARK HAS NOT BEEN ALTERED OR DISTURBED AND THAT IT'S RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION SHOWN ON THIS DRAWING.
- 3. BENCHMARK WAS PROVIDED ON PLAN OF SURVEY BLOCK 241, REGISTERED PLAN 4M-1617, CITY OF OTTAWA, SURVEYED BY J.D. BARNES LIMITED.

## FOR REVIEW ONLY

MS / LSC 1:400 1.50 1:400 4 8 12 16 

ELE=98.81



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		1500mm/ STM TOF-90.24	± 2.4
3	150mmØ WM BOTTOM=99.05	250mmØ WM TOP=98.58	± 0.4
4	150mmØ WM BOTTOM=99.14	250mmØ WM TOP=98.51	± 0.6
5	250mmØ WM BOTTOM=98.21	200mmØ SAN TOP=97.76	± 0.4
6	250mmØ WM BOTTOM=98.17	200mmØ SAN TOP=97.74	± 0.4
0	250mmØ WM BOTTOM=98.09	200mmØ STM TOP=97.72	± 0.3
8	250mmØ WM BOTTOM=98.09	200mmØ SAN TOP=97.72	± 0.3
9	200mmØ STM BOTTOM=97.47	250mmØ SAN TOP=95.68	± 1.7
10	200mmØ SAN BOTTOM=95.78	900mmØ STM TOP=94.92	± 1.(
(1)	150mmØ WM BOTTOM=98.15	900mmØ STM TOP=94.91	± 3.2
12	150mmØ WM BOTTOM=98.00	900mmØ STM TOP=94.90	± 3.1
(13)	150mmØ WM BOTTOM=98.09	300mmØ SAN TOP=94.10	± 3.9
(14)	150mmØ WM BOTTOM=98.09	300mmØ SAN TOP=94.09	± 4.0
(15)	250mmØ STM BOTTOM=96.93	250mmØ SAN TOP=95.88	± 1.0
(16)	250mmØ STM BOTTOM=96.96	250mmØ WM TOP=96.46	± 0.5

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	RMAIN (100mmø and l RMAIN (50mmø and sn			'C DR 18 'PE K COPPER		
OTTAWA OF ALL	AND CONSTRUCT ALL STANDARDS AND SP WATERMAINS BY TH VATION OF THE WATE	ECIFICATIONS. EXO E CONTRACTOR.	CAVATIO CONN	ON, INSTALLATION, B IECTIONS AND SHU	ACKFILL AN T-OFFS AT	D RESTORATION
EXCAVA CONNEC	TION, INSTALLATION, CTIONS AND SHUT-OF MED BY CITY OFF	BACKFILL AND RES	TORAT	ION OF ALL WATERM LORINATION OF THE	IAINS BY TH	STEM SHALL BE
RESTOR	ATION BY THE CONTR IAIN SHALL BE MINIM OF COVER IS LESS	RACTOR. IUM 2.4m DEPTH BI	ELOW G	RADE UNLESS OTH	ERWISE IND	DICATED. WHERE
STANDA	E MINIMUM 0.25m CLE	ERMAIN SHALL BE I	NSULAT	ED BY OPEN STRUC	TURES PER	W23.
	SERVICE IS TO BE CO VISE INDICATED.	NSTRUCTED TO WI	THIN 1.(	Om of Foundation	WALL AND (	CAPPED, UNLESS
CHAINAGE	FINISHED GRADE	250mmØ WATERM		BLE	/ENT	
5+000.0 5+000.9 5+002.5	100.93 100.92 100.91	98.81 98.35 98.35	2	CONNECT TO EXISTIN 22.5° VERTICAL BEND ALVE AND VALVE BO	)	5° VERT BEND
5+004.1 5+004.8	100.89 100.87	98.35 98.35	2	250mm x 150mm CROS /ALVE AND VALVE BO	SS CONNEC	
5+005.6 5+010.6 5+014.8	100.86 100.75 100.75	98.35 98.35 98.35	2	250mm x 150mm CROSS CONNECTION250mm x 250mm TEE CONNECTIONTOP OF WATERMAIN ELEVATION		
5+031.5 5+056.5 5+060.5	100.30 100.02 98.48	97.90 96.46 96.51	1	TOP OF WATERMAIN ELEVATION TOP OF WATERMAIN ELEVATION VALVE AND VALVE BOX		
5+064.7 5+068.5	98.40 98.08	96.56 95.68		22.5° VERTICAL BEND 250mm x 250mm TEE (		N (ROTATED)
	1	250mmØ WATERM				
CHAINAGE 6+000.0 6+013.0	FINISHED GRADE   101.05   101.32	TOP OF WATERM/ 98.85 98.66	(	COMN CONNECT TO EXISTIN ALVE AND VALVE BO	NG 250mmØ	WATERMAIN
6+014.7 6+016.3 6+021.6	101.36 101.38 101.16	98.63 98.60 98.50	4	DISTRICT METER AREA CHAMBER (DMA) 45° HORIZONTAL BEND WATER CROSSING (0.25m SEPARATION MIN)		
6+027.3 6+029.0	100.88 100.75	98.40 98.35		5° HORIZONTAL BEN CONNECT TO PROPO		ØWATERMAIN
<b></b>			20551			
(	SSING HIG 250mmØ WI	HER PIPE M BOTTOM=98.55 M BOTTOM=98.51	L 200m	OWER PIPE mØ SAN TOP=96.51 mØ STM TOP=96.24	CLEARAN ± 2.04n ± 2.27n	1
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	7 250mmØ WI   3 250mmØ WI	M BOTTOM=98.17 M BOTTOM=98.09 M BOTTOM=98.09	200mr	mØ SAN TOP=97.74 nØ STM TOP=97.72 mØ SAN TOP=97.72	± 0.43n ± 0.37n ± 0.37n	1
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